



Product Data

DRN3.1

PULSE/ANALOG/FLOATING POINT
Input to Proportional Resistance Output

Product Description

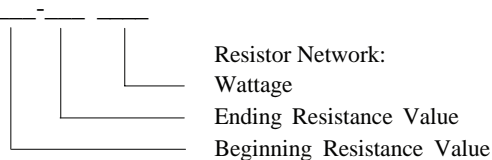
The DRN3.1 is an interface that allows microprocessor control of a variable resistance. The DRN3.1's isolated resistor network can be controlled by several different DDC signal types. It directly replaces a variable resistance controller and simulates the action of a slide wire or rotary potentiometer. All connections of the simulated potentiometer, the wiper, and both ends of the resistance range are available on the DRN3.1 terminal strip.

The DRN3.1 has on-board fail-back relays that lock out the original resistive signal during DRN3.1 operation. However, if the DRN3.1 supply power is lost, control of the circuit will revert back to the original controller signal. An easy local override can be made by placing a fixed (or variable) resistor between W and R Fail-safe terminals. There are LED indicators for power and input signals.

The DRN3.1 accepts an ANALOG, PULSE, or FLOATING POINT input signal (including triac) and converts it into a proportional resistive output. The output resistance does not wrap around if the input signal exceeds the highest or lowest selected input value.

The DRN3.1 is covered by ACI's Two (2) Year Limited Warranty, which is located in the front of ACI'S SENSORS & TRANSMITTERS CATALOG or can be found on ACI's Website, which is: www.workaci.com.

Specify: **DRN3.1**

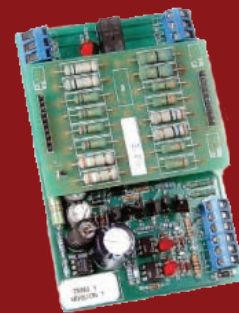


STANDARD RESISTOR NETWORKS

- RN (0-500) 1/4watt (+/- 5%)
- RN (0-1000) 1/4 watt (+/- 5%)
- RN (0-1500) 1/4 watt (+5%)
- RN (0-2K) 1/4 watt (+/- 5%)
- RN (0-3K) 1/4 watt (+/- 5%)
- RN (0-4K) 1/4 watt (+/- 5%)
- RN (0-5K) 1/4 watt (+/- 5%)
- RN (0-10K) 1/4 watt (+/- 5%)
- RN (0-20K) 1/4 watt (+/- 5%)
- RN (0-40K) 1/4 watt (+/- 5%)



Interface Devices



Attributes:

- 8 ANALOG voltage/ current input signal ranges
 - 6 selectable PULSE input ranges
 - 6 selectable FLOATING POINT ramp rates
 - Removable PLUG-IN resistive network
 - Fail-safe to original Controller or a fixed value
 - Custom pulse ranges and rates of change available
 - Snap track included
- Applications:**
- Electric Actuator Control
 - Electronic Potentiometer
 - Resistive Sensor Simulation



Made in the USA

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See reverse side for product specifications

Wiring Diagrams available at www.workaci.com

TEMPERATURE

RELATIVE HUMIDITY

PRESSURE

CURRENT

GAS SENSORS

ACCESSORIES

INTERFACE DEVICES

Product Specifications

Electrical Requirements

Supply Voltage	24 VAC +/- 10%, 24 VDC +25%/-8%
Supply Current	250 mA maximum
Input	
Source:	Relay contact closure/transistor/Triac
Trigger Level:	4.5-30VDC/10-26.4 VAC
Pulse Ranges: (Off time 80 milliseconds min)	V#1: 0.02 to 5 sec / 0.02 sec increments 0.1 to 25.5 sec / 0.1 sec increments, or 0.59 to 2.93 sec / 0.01 sec increments V#2: 0.1 to 10 sec or 0.023 to 6 sec V#4: 0-10 sec Duty Cycle Pulse (Sampled in a 10 sec window)
Impedance:	750Ω nominal
Floating Point Rates of change:	V#1: 30,60, and 90 sec V #2: 45, 120, and 240 sec
Impedance:	750Ω nominal
Analog Ranges (V#1 & V#2):	0-5, 1-5, 0-10, 2-10, 0-15, or 3-15 VDC / 0-20 or 4-20mA
Analog Input Impedances:	Voltage: 10,000 ohms Current: 250 ohms
Output Resolution	256 Steps (No wrap around)
Relay Contacts Type Rating Electrical Life Mechanical Life	Form C, Gold-clad silver 2 amp max resistive @ 24 volts 100,000 operations @ 1 amp 10 million operations
Operating Temperature	32 to 120° F (0 to 48.9° C)
Operating Humidity	10% to 95% non-condensing
Approval	RoHS



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